



Information & Communication Technology



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Fifth Grade First Term

# Theme1

Lesson 1: Explorer in Action

Lesson 2: Computer Accessories

Lesson 3: Networks

**Lesson 4: Digital Communication Tools** 

Lesson 5: Network connection problems

Lesson 6: Manaaging files

Lesson 7: Strategies for searching for

information

Lesson 8: Sharing information

First Theme review

can we use ICT tools together, even when we are in different places?

In this theme, you will learn how to communicate between different computer networks, how to troubleshoot common computer hardware and software problems and ways to solve them, and how to use ICT tools effectively and efficiently. You will also create a spreadsheet electronically using what the participant has learned and the information she has obtained while searching online.

# The role of ICT in our lives

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# Theme1: The role of ICT in our lives Lesson 1: Explorer in Action

#### Lesson objectives

- Give examples of how to share information.
- I define ways to record information.
- 3) I communicate and exchange information with my colleagues through one of the educational platforms.

Engage: What ICT tools do you use regularly? How does it help you in accomplishing your various tasks?

#### FRED HIEBERT: FREDRIK HIEBERT:

Archaeologist and Explorer at National Geographic, Fred Herbert's interests: He is interested in studying the past through:

A- Excavation" prospecting", B- Observation.

C- Writing about archaeological objects and sites

# Programs that scientists use in their daily work:

Program	Use to
1) Word (Word processing)	Writing reports
2) Excel (Spreadsheet program)	Preparing and expressing graphs
3) PowerPoint (Presentation program)	Present the results of his research to his team

### But we must make sure that the presentation slides are:

A - easy to read,

# b - explains the information.

#### Formal contact methods:

When Fred wants to communicate more formally, he uses: b- E-mail, a- paper letters

C- Or personally delivers the documents.

### Ways of communication between people:

- 1- Direct interviews: communicating with people through direct and face-to-face interviews.
- 2- Virtual meetings: If direct communication is not possible, virtual meetings are held.

(Fred direct interviews are preferred)

#### Situations in which Farid resorts to virtual meetings:

Being away on an expedition.

1- Zoon

2- The presence of people he meets in distant countries.

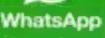
Programs used for virtual meetings:

2- WhatsApp.



























### What to take into account when holding virtual meetings:

Organizing its dates at a time convenient for everyone, but due to the time difference between countries, it may be difficult.

#### Fred believes that:

- It is important to follow up on virtual meetings, meetings, or phone calls with comments or formal notes documented in an email or sent as an attached Word document.
- Follow-up ensures that all participants have the same information and a copy to keep.



Education and Training: A great way to transfer knowledge and skills is to give someone knowledge and practice in a subject you have a lot of experience with.

#### What trainers offer others:

- 1- They share their experiences with others.
- 2- How to deal with the problems they may encounter,
- 3- They help others progress faster.

Fred Heibert has been instrumental in guiding his students and colleagues from all over the world.

(Have you ever mentored or trained others?)



Sharing information has become an essential part of our daily lives, and technology has made this task easier.



The Ministry of Education and Technical Education ensures that students obtain records of what they have to learn in the classroom through:

- 1- Educational channels (satellite broadcasts) affiliated to it.
- 2- Madrastna channel on YouTube.

It is on Madrastna YouTube channel: Video clips for all subjects, and this gives another opportunity to students who:

- a) they missed a lesson,
- b) they need further explanation of the lesson,
- c) They want a quick review of the lesson.

Therefore, Madrastna channel is an opportunity for students to watch lessons whenever they want.





### From the above, we explore the following:

- Sometimes technology can bring great challenges.
- And scheduling calls can be very difficult.
- For this, Farid has to take into account many factors, such as the time difference between countries.

#### **Notice and learn**

- Virtual meetings or video conferencing provide an effective way to educate and train others;
- During video conferencing, people can see and hear each other,
- They can also share information via their displays,
- As well as sending and receiving documents.
- Virtual meetings have become very popular in 2020,
- Since then, more people are using it all over the world.



# 1. In your opinion, how has video conferencing made it easier for people to educate and train others?

- Because it helps them learn from experts and practice on their hands wherever they are and at any time.

#### 2. How do virtual meetings help people communicate and share knowledge?

- As it does not require attendance or travel to learn, it is sufficient for a computer equipped with a microphone and a camera and is connected to the Internet.

### Lesson one summary:

- 1- Fred Hebert is an archaeologist and explorer who studies the past through excavation, observation and writing about antiquities.
- 2- He uses Word, Excel and PowerPoint programs in his daily work. In official correspondence, it depends on paper letters, e-mails, and personal delivery.
- 3- He communicates with his students and people around the world, either through direct interviews or through virtual meetings through the Zoom and WhatsApp program.
- 4- He organizes appointments at an appropriate time and faces difficulty due to the time difference between countries.
- 5- He follows up on meetings and meetings and seeks for each trainee to obtain a copy of a document of the information.
- 6- Education and training is a great way to transfer knowledge, and trainers provide their experiences to the trainees and help them learn.
- 7- The Ministry of Education seeks to share information with students through satellite educational channels or through Madarstna's YouTube channel,
- 8- Madarstna channel contains videos for all subjects and provides an opportunity for students to study their lessons with more explanation and review.

### Theme1: Lesson 1 Questions

First: Put the word (true) or (false) :-
1- Fred Hiebert, in his daily work, uses a word processor program (Word) in his
writing of reports.
2- Fred Hiebert does not prefer to communicate with people through direct interviews.( )
3- Hierbert holds virtual meetings using Zoom and WhatsApp. ( )
4. Hierbert considers scheduling meetings at a convenient time for everyone,
which is very easy.
5- Explorers use PowerPoint to present the results of their research to their team.( )
6- Explorers use the spreadsheet program (Excel) in preparing and expressing graphs.( )
7- Explorers use a word processing (Word) to write reports. ( )
8- To communicate more formally, explorers use only paper letters. ( )
9 - Coaches do not provide their expertise to others.  ( )
10. Information sharing has become an essential part of our daily life. ( )
11- Technology has facilitated this task.
12- It is important to follow up on meetings with comments to ensure that all
participants have the same information and a copy to keep. ( )
13- The Ministry of Education is keen that students receive recordings of what
they have to learn in the classroom through its satellite channels. ( )
Second: Choose the correct answer from the brackets:
1- Fred Hiebert, as an archaeologist, studies the past through
a- prospecting b- correspondence c- the Internet.
2- One of the programs used by Fred Heibert.
A- Programming B- Editing C- Excel spreadsheet
3- Fred Hiebert prefers when communicating with others.
A- not direct communication B- direct communication C- long distance communication
4- In the event that Fred Hiebert cannot communicate directly with others
A- Holds virtual meetings B- Postpones meetings C- Cancels meetings
5 is a great way to impart knowledge and skills.
a- research b- exploration c- education and training
6- When the explorer wants to communicate more formally, he uses:
a- wireless b- emails c- phone
7- The channel constitutes an opportunity for students to watch
lessons whenever they want.
A- Madrastna B- sports C- entertainment
8- Always take into account when conducting virtual meetings.
A- Difference in time between countries
B- Different nationalities C- Difference in language
9- It provides an effective method for distance education and training of others;
a- the library b- virtual meetings c- the school
Third: Complete the following statements :
1- Fred Hiebert, as an archaeologist, studies the past through
1- Fred Filebert, as an archaeologist, studies the past tillough
***************************************

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hen he wants to communicate more formally, he uses	,
has become years as many 2020	
has become very common in 2020.	
urth: Match column (A) with the appropriate column (B).	
A	В
Archaeologists study the past through.	a. virtual meetings
an effective method of distance learning and training.	B. prospecting
is used to write reports	c. Email
t is used to write reports.	

(Zoom - word - Excel - power point - Email)

- 1- The explorers use ......to present the results of his research to his team.2- And the program ......in preparing and expressing graphics

- 3- The ......program in writing reports.
  4- It is used ......for the reporter in an official way between the work teams.
- 5- While .....is used to hold virtual meetings.



المحور الأول: دور تكنولوجيا المعلومات والاتصالات في حياتنا

# Theme1: The role of ICT in our lives

الدرس 2: الأدوات الملحقة بالكمبيوتر

Lesson2: Computer peripherals "accessories"

Lesson objectives

- Explain the basic concepts of computer peripherals.
- Describe common computer problems.
- 3) I explain how to solve some common computer problems.

أهداف الدرس

- ١) أوضح المفاهيم الأساسية للأدوات الملحقة بالكمبيوتر.
  - ٢) أصف مشكلات الكمبيوتر الشائعة.
  - ٣) أشرح كيفية حل بعض مشكلات الكمبيوتر الشائعة.

لنتفاعل معاً: ما الأمور التي يمكن أن ينفذها الكمبيوتر؟ وكيف تمكنه مكوناته من تنفيذ هذه الأمور؟
Engage: What can a computer do? And how its components enable him to implement these things?

يمكنك استخدام أدوات تكنولوجيا المعلومات والاتصالات لمشاركة الأفكار وتبادلها( مثل فريد هيبرت)، لكن يجب أن تعمل مكونات جهاز الكمبيوتر الخاص بك بشكل صحيح.

You can use ICT tools to share and exchange ideas (such as Fred Hebert), But your computer components should function properly.

#### Some computer accessories "peripherals":

#### بعض الأدوات الملحقة بالكمبيوتر:

واجهة الوسائط المتعدة عالية الوضوح (HDMI): سلك ينقل الصوت والصورة من الأجهزة وإليها.

High Definition Multimedia
Interface (HDMI): A wire that
transmits audio and video to
and from devices.

محرك القرص الصلب الخارجي: مثل محرك القرص الثابت، ولكنه يعمل بشكل أسرع. External Hard Drive: Like a hard disk drive, but it runs faster.

ذاكرة الفلاش: تستخدم تخزين المعلومات لنقلها أو مشاركتها Flash Memory: Used to store information for transmission or sharing



# منفذ الإيثرنت (Ethernet Port): يتصل بسلك إيثرنت، الإيثرنت أكثر

Ethernet Port: Connects to an Ethernet cable, Ethernet is more stable and faster than wireless connections.



# سٹك ایٹرنت (Ethernet Cable):

سلك يربط جهاز الكمبيوتر أو الكمبيوتر المحمول بجهاز التوجيه (الراوتر)

Ethernet cable: A wire that connects your computer or .laptop to your router



# الراوتر "جهاز التوجيه": جهاز يربط جهاز الكمبيوتر بالإنترنت بواسطة ال

بر التعبيوس بالم تترت بواسد Wi-Fi أو الإيثرنت.

Router: A device that connects a computer to the Internet via Wi-Fi or Ethernet.









0	:	التخزين )	(قياس سعة	التخزين	قياس	: وحدات	أولأ	القياس:	وحدات
---	---	-----------	-----------	---------	------	---------	------	---------	-------

: (bit) :	أصغر وحدة بيانات.	
بایت Byte أو (B)	( 1 بايت = 8 بت = حرف واحد )	مثال (كلمة "قط" تتشكل من ثلاثة أحرف وبالتالي تحتاج إلى ٣ بايت).
کیٹوبایت Kilobytes	B 1024 = KB 1	
میجا بایت MB	KB 1024 = MB 1	
جيجابايت Gb	MB 1024 = GB 1	
تیرابایت TeraByte	GB 1024 = TB 1	

لاحظ الترتيب من الأصغر إلى الأكبر: بت ﴾ بايت ﴾ كيلو بايت ﴾ ميجا بايت ﴾ جيجا بايت ﴾ جيجا (ملحوظة التيرا بايت هي أكبر وحدة بيانات في الوحدات السابقة ولكن توجد وحدات أكبر هل تعرفها ؟!!)

Units of Measurement: First: Units of Storage Measurement (Storage Capacity Measurement):

bit	The smallest	The smallest unit of data.		
Byte (B)  1 byte = 8 bits  Example (the word "call letters and therefore reference or the second call letters and the second call letters are second call letters.		Example (the word "cat" consists of three letters and therefore needs 3 bytes).		
Kilobytes (Kb)	1 KB = 1024 B	1 KB = 1024 B		
Megabyte (MB)	1 MB = 1024 KB			
Gigabyte (Gb)	1 GB = 1024	MB		
TeraByte (Tb)	1 TB = 1024 (	GB		

Note the order from smallest to largest:

bits  $\rightarrow$  byte  $\rightarrow$  KB  $\rightarrow$  MB  $\rightarrow$  GB  $\rightarrow$  TB

(Note that the terabyte is the largest data unit in the previous units, but there are larger units, do you know them?!!)

ثانياً: وحدات قياس سرعة الاتصال:

ميجابت في الثانية (Mbps): وحدة قياس تستخدم لقياس سرعة الشبكة أو الاتصال بشبكة الإنترنت،

كلما زادت سرعة الشبكة، كان ذلك أفضل

Second: Communication speed units:

Used to measure network speed or internet connection, Mbps

075 Max 030 Max

The higher the network speed, the better



ثالثًا: وحدات قياس سرعة المعالج:

جيجاهيرتز (GHz): وحدة لقياس عدد الدورات التي تنفذها وحدة المعالجة المركزية في الثانية؛

وكلما زاد عدد الدورات، زادت سرعة معالجة البيانات والتعليمات.

#### **Third: Processor Speed Units:**

GHz (GigaHertz)

A unit of measurement for the number of cycles a CPU performs per second;



The higher the number of cycles, the faster the data and instructions can be processed.

#### بعض المشكلات المحتملة للكمبيوتر وحلولها:

		-
	مشكلة في معالجة الملفات الكبيرة، مثل عرض تقديمي حجمه كبير	المشكلة الأول
Can Can	3	*** * * * * * * * * * * * * * * * * * *
	عدم وجود مساحة تخزين كافية للرسومات	الأسباب المحتملة
	أغلق بعض البرامج	الحل
	الاتصال ضعيف بالشبكة أثناء مؤتمر فيديو	المشكلة الثانية
	اتصال لاسلكي بالإنترنت ضعيف وبطيء	الأسباب المحتملة
TIL	جرب شبكة الإيثرنت السلكية السريعة.	الحل
THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAM	عدم القدرة على تخزين الملفات	المشكلة الثالثة
	المساحة غير كافية.	الأسباب المحتملة
	أنقل الملفات القديمة إلى محرك أقراص خارجي.	الحل
		/ /
	الإنترنت المنزلي لا يعمل.	المشكلة الرابعة
NO INTERPRET	انقطاع الاتصال	الأسباب المحتملة
INTERNET	استخدم الإيثرنت أو اتصل بمزود خدمة الإنترنت	الحل

# Possible computer problems and solutions:

Possible com	puter problems and solutions:	
Problem 1	Problem processing large files, such as a large presentation	CIPU CIPU
Causes	Not enough storage space for graphics	
Solution	Close some programs	
Problem 2	The network connection is poor during a video conference	
Causes	Slow and weak wireless internet connection	
Solution	Try fast wired ethernet.	
Problem 3	Not being able to store files	
Causes	Space is not enough.	
Solution	Move old files to an external drive.	
Problem 4	Home internet is not working.	
1 TODICITI 4	Trome internet is not working.	700



Use Ethernet or contact your ISP

Disconnection

Causes

Solution

للحظ وتعلم الآتي: أولاً: اقرأ المواقف، واقترح حلولا.

الحلول	المو اقف	٩
جرب شبكة الإيثرنت السلكية السريعة	تحتاج إلى تتزيل ملفات كبيرة الحجم متعددة من الإنترنت	١
أنقل الملفات القديمة إلى محرك أقراص خارجي	تريد أن يحتفظ جهاز الكمبيوتر الخاص بك بمزيد من البيانات.	۲
أغلق بعض البرامج	تريد أن تلعب لعبة فيديو عبر الإنترنت تحوي الكثير من الرسوم المتحركة.	٣
أغلق بعض البرامج التي لاتحتاجها	تريد استخدام تطبيقات متعددة في وقت واحد.	٤

#### Note and learn the following: First: Read the situations, and suggest solutions.

No	Situation	Solutions
1	You need to download multiple large size files from the internet	Try fast wired ethernet
2	You want your computer to keep more data.	Move old files to an external drive
3	You want to play an online video game with a lot of animation.	Close some programs
4	You want to use multiple apps at once.	Close some programs you don't need

## ثانياً: أي من الأدوات الملحقة بجهاز الكمبيوتر سيضمن لك اتصالا جيدا بالشبكة خلال مؤتمر فيديو؟ علل اختيارك.

السبب	الأداة
الإيثرنت أكثر استقرارا وأسرع من الوصلات اللاسلكية	منفذ الإيثرنت (Ethernet Port): حيث يتصل بسلك إيثرنت

Second: Which of the computer accessories "peripherals" you will ensure a good network connection during a video conference? reasons for your choice.

Tool	Cause
Ethernet Port: Connects to an Ethernet	Ethernet is more stable and faster than
cable	wireless connections

ثالثاً: اشرح سبب أهمية عمل وحدة المعالجة المركزية لجهاز الكمبيوتر الخاص بك بشكل صحيح. كيف تؤثر وحدة المعالجة المركزية المعالجة المركزية المعالجة المركزية البطيئة أو التي تعمل بشكل سيئ، في جهاز الكمبيوتر؟

وحدة المعالجة المركزية هي المسئول عن معالجة البيانات المدخلة للكمبيوتر	الأهمية
كلما زاد عدد الدورات، زادت سرعة معالجة البيانات والتعليمات. والعكس صحيح	التأثير

Third: Explain why it is important for your computer's CPU to function correctly. How does a slow or poorly working CPU affect a computer?

Importance	The CPU is responsible for processing the data entered into the computer	
FITECT	The higher the number of cycles, the faster the processing of data and instructions. vice versa	

ICT 5th Grade Term 1

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- ١- للكمبيوتر ادوات ملحقة للتخزين مثل ذاكرة الفلاش لتخزين ومشاركة الملفات محرك القرص الخارجي
   لتخزين ونقل الملفات بشكل اسرع من القرص الثابت
- ٢- تستخدم واجهة الوسائط المتعددة عالية الوضوح لتوصيل سلك ينقل الصوت والصورة من والى الاجهزة.
  - ٣- لتوصيل الجهاز بالانترنت سلكيا نحتاج لنوصل سلك الايثرنت بمنفذ الايثرنت.
  - ٤- جهاز التوجيه او الراوتر يربط جهاز الكمبيوتر بالانترنت لاسلكيا بواسطة الواي فاي او سلكيا بواسطة الايثرنت.
    - ٥- يقاس حجم البيانات ب ( البت اصغر وحدة ثم البايت، الكيلو بايت، الميجا بايت، الجيجابايت، واخيراً تيرابايت .
    - ٦- الميجابت في الثانية تستخدم لقياس سرعة الاتصال بالانترنت، بينما جيجاهيرتز تستخدم لقياس سرعة المعالج.
      - ٧- اغلاق البرامج يساعد على حل مشكلة معالجة الملفات الكبيرة لعدم وجودة مساخة تخزين كافية للرسومات.
        - ٨- بينما استخدام شبكة ايثرنت السلكية يعالج مشكلة الاتصال اللاسلكي بالانترنت ضغيف.
  - ٩- ونقل الملفات القديمة لمحرك الاقراص الخارجي يعالج مشكلة عدم وجود مساحة كافية لتخزين الملفات.
    - ١٠- والاتصال بمزود الخدمة يساعد على حل مشكلة انقطاع الاتصال بالانترنت.

#### Summary of the second lesson:

- 1- The computer has storage accessories such as flash memory for storing and sharing files and an external disk drive to store and transfer files faster than a hard disk
- 2- High-definition multimedia interface (HDMI), used to connect a wire that transmits audio and video to and from devices.
- 3- To connect the device to the Internet wired, we need to connect the Ethernet cable to the Ethernet port.
- 4- The router connects the computer to the Internet wirelessly via Wi-Fi or wired via Ethernet.
- 5- Data size is measured in (bit is the smallest unit, then byte, kilobyte, megabyte, gigabyte, and finally terabyte).
- 6- Megabits per second or Mbps is used to measure the speed of the internet connection, while gigahertz or GHz is used to measure the speed of the processor.
- 7- Closing programs helps to solve the problem of processing large files because there is not enough storage space for graphics.
- 8- While the use of a wired Ethernet network addresses the problem of the wireless connection to the Internet is weak.
- 9- Transferring old files to an external drive addresses the problem of not having enough space to store files.
- 10- Contacting the service provider helps to solve the problem of disconnection from the Internet.

Al-Khwarizmi Educational Series				
بكة الإنترنت.	تخدم لقياس سرعة الشبكة أو الاتصال بش	٩ هي وحدة قياس تس		
بایت	ب- جیجاهیرتز GHz			
		<ul> <li>١٠ کلمة مصر تحتاج الى</li> </ul>		
م بایت Second: Chasse the correct		اً- ۳ بایت		
Second: Choose the correct				
1- Your components	should work properly to share	e files.		
A- computer	B- human body	C- network		
2 like a hard disk dri	ve, but it runs faster.			
a- external hard disk drive	b- flash memory	c- ethernet port		
3- A device that connects a	computer to the Internet via V	Vi-Fi or Ethernet.		
A- External hard disk drive	B- Router	C- Ethernet port		
4- It is used to store, transfe	r or share information.			
a- external hard disk drive	b- router	c- flash memory		
5 is a cable that	t connects your computer or l	aptop to the router.		
a- external hard disk drive	b- ethernet cable	c- router		
6- An Ethernet cable is a wire that transmits audio and video to and from devices.				
A- Ethernet cable	B- router	C- HDMI		
7the smallest unit	of data.			
a-bit	b-GHz	c-byte		
8 a unit of measurement of the number of cycles per second by the CPU;				
A- Mbps	B- Ghz	C- Byte		
9 is a unit of mea	surement used to measure th	ne speed of a network or		

A- Mbps B- GHz C- Byte

10- The word Egypt needs .....

A - 3 bytes C - 5 bytes

Grade Term 1

# رابعا: صل العمود أ بما يناسبه من العمود ب

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· ·	Í
<ul><li>A. ( 1 بایت = 8 بت = حرف واحد )</li></ul>	۱. بت (bit) :
KB 1024 = MB 1 .B	۲. بایت Byte أو (B).
<ul><li>C. أصغر وحدة بيانات.</li></ul>	۳. كيلوبايت Kilobytes .
GB 1024 = TB 1 .D	٤. ميجا بايت MB
B 1024 = KB 1 .E	ه. جيجابايت Gb
MB 1024 = GB 1 .F	۱. تیرابایت TeraByte

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#### Fourth: Match column A with column B

Α	В	
1. Bit	A. (1 byte = 8 bits = 1 character or Letter)	
2. Byte	B. 1 MB = 1024 KB	
3. Kilobyte	C. The smallest unit of data.	
4. MB	D. 1 TB = 1024 GB	
5. Gb	E. 1 KB = 1024 B	
6. TeraByte	F. 1 GB = 1024 MB	

# خامسا: اختر الاجابة الصحيحة مما بين القوسين:

(ذاكرة الفلاش - HDMI - القرص الصلب الخارجي - سلك الايثرنت - الراوتر)

۱- ...... يخزن المعلومات ويعمل اسرع من القرص الصلب.

۲- ..... تخزن البيانات وتساعد على نقلها.

٣- .... يربط جهاز الكمبيوتر أو المحمول بجهاز التوجيه.

٤- ... يربط جهاز الكمبيوتر بالإنترنت بواسطة ال Wi-Fi أو الإيثرنت.

٥- ..... سلك ينقل الصوت والصورة من الأجهزة وإليها.

# Fifth: Choose the correct answer from the brackets:

# (Flash Memory - HDMI - External Hard Disk - Ethernet Cable - Router)

- 1- ..... stores information and works faster than a hard disk.
- 2- ..... stores data and helps to transfer it.
- 3- ..... connects your computer or laptop to the router.
- 4- ..... connects your computer to the Internet via Wi-Fi or Ethernet.
- 5- ...... a cable that transmits sound and image to and from devices.